Statewide Planning And Research Cooperative System

Annual Report 1995

Volume 1

New York State Department of Health

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THE SPARCS DATA SYSTEM

▸ BACKGROUND

The Statewide Planning and Research Cooperative System (SPARCS) was implemented by the New York State Department of Health in 1979, with the cooperation and initial financial support of the U.S. Department of Health and Human Services. SPARCS receives, processes, stores, and analyzes the following: inpatient hospitalization data from all Article 28 facilities in New York State and ambulatory surgery data from hospital-based ambulatory surgery services and all other facilities providing ambulatory surgery services.

SPARCS continues to be a comprehensive, integrated information system available to assist hospitals and organizations in the health care industry with health care resource planning, financial analysis, decision making, and surveillance of New York State hospital and ambulatory surgery services and costs. SPARCS has proven to be an effective management tool, not only for the Department of Health but also for the health care industry. Widespread support and advice from many organizations and individuals in the public and private sectors have made possible the development and refinement of SPARCS. The Department of Health continues to invite active participation in improving the quality and usefulness of SPARCS.

The 1995 Annual Report represents SPARCS's sixteenth full year of data collection efforts. The Annual Report Series presents hospital inpatient stay data based on discharges for each year through a set of standard statistical tables which serve the needs of a wide spectrum of health information users.

▸ DATA SOURCES

From 1980 through 1993 SPARCS made use of two data sources: the Discharge Data Abstract (DDA) and the Uniform Billing Form (UBF). In 1995 SPARCS began collecting essentially the same information from a single source based on the Universal Data Set (UDS) specifications. These specifications blend the UB-92 nationwide inpatient and outpatient billing requirements with the unique billing and discharge data reporting requirements of New York State. The single UDS data stream requires that medical abstract information and billing data are merged before they are sent to SPARCS.

This new electronic format streamlines multiple data submission formats into a single format, removing redundant reporting requirements for hospitals and other health care facilities, while continuing to support the myriad of requests from health care researchers for both billing and medical records data. (Appendix A lists the UDS data elements collected by SPARCS.)

Each health care provider submits its SPARCS data in the uniform, computer-readable format described in the UDS. The data are sent to the Department of Health either directly by the hospital or through one of a number of private information processing services. Every record received is edited to identify errors, and hospitals are notified of records needing correction. Each data element must have a valid value before the record is accepted by the system. When a record needs correction, the hospital or processing service is notified. Duplicate submissions are carefully screened.

▸ DATA PROTECTION

Regulations governing the confidentiality of SPARCS data were adopted by the New York State Hospital Review and Planning Council with the advice of all sectors of the health care industry. The regulatory, tracking, and monitoring functions of SPARCS are administered by the New York State Department of Health. The responsibility for protecting the confidentiality and privacy of data related to patient care resides with the Commissioner of Health.

To protect patient privacy, patient names are omitted from the SPARCS data set. The focus of the system is the incidence of diseases or conditions requiring hospitalization rather than individual patients. For this reason, users of SPARCS data cannot ascertain the number of individuals treated for a specific disease, only the number of hospitalizations that have occurred.

Descriptions of the data displayed in the tables are included below to assist in using the report:

▸ EXPECTED PRIMARY SOURCE OF REIMBURSEMENT

The expected primary source of reimbursement used in the 1995 Annual Report is obtained from the Universal Data Set. This data element is documented at the time of discharge, not the time of payment, and represents the best information available to the hospital when a patient leaves the facility. However, given the complexity of reimbursement processes, especially when a patient appears to be eligible under more than one third-party payment plan, the expected primary payer is not always the ultimate primary payer. There may also be a bias toward under reporting of discharges for third-party payers when there are delays in establishing eligibility.

Special care should be taken in interpreting tabulations of patient days by expected primary source of reimbursement. For each discharge a single payer is reported as the expected primary source of reimbursement. Since many cases have multiple payers, the expected primary payer may not pay the entire bill. This information is displayed on Tables 1, 9, and 15.

▸ SERVICE CATEGORIES

The service categories used in the 1995 Annual Report are based on categories developed by the New York State Department of Health and are defined in terms of diagnosis and procedure codes from the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM). This information is displayed on Tables 1, 2, 3, 5, 8, 11, and 12.

NURSERY - Patients whose age is equal to zero and have an ICD-9-CM code of V30.0, V30.1, V31.0, V31.1, V32.0, V32.1, V33.0, V33.1, V34.0, V34.1, V35.0, V35.1, V36.0, V36.1, V37.0, or V37.1 are considered nursery patients. These codes refer only to live-born infants. Definitions of nursery service category and newborn age category are the same.

OBSTETRICAL - Obstetrical patients are females of any age with an ICD-9-CM code within the range of 630 through 634.9 and 640 through 676.9.

PSYCHIATRIC - Psychiatric patients are any age with an ICD-9-CM code within the range of 290 through 319.

PEDIATRIC - Pediatric patients are age 14 years and younger whose primary diagnosis is neither included in the nursery, obstetrical, or psychiatric categories nor classified by ICD-9-CM codes 614 through 629.9 (gynecological) or 635 through 639.9 (abortion).

MEDICAL - Medical patients are age 15 years or older with no reported procedure code or with reported procedure codes greater than 86.99. This category also includes gynecological patients (ICD-9-CM codes 614 through 629.9) of all ages with no reported procedure code or with reported procedure codes greater than 86.99. Excluded are newborn, obstetrical, psychiatric, and pediatric patients as defined above.

SURGICAL - Surgical patients are age 15 years or older with at least one procedure code in the range 01 through 86.99. This category also includes gynecological patients (ICD-9-CM codes 614 through 629.9) of all ages with at least one such procedure code and all patients whose principal diagnoses are codes 635 through 639.9 (abortion). Excluded are newborn, obstetrical, psychiatric, pediatric, and medical patients as defined above.

▸ DISPOSITION OF PATIENT

The 1995 Annual Report includes disposition of patient information which is obtained from the Universal Data Set. It identifies the patient's destination or status upon discharge. The information is displayed on Tables 1 and 16. The categories used in the report include home, another acute care hospital, skilled nursing facility, intermediate care facility, other institution, home health services, left against medical advice, psychiatric chronic care, and died. To reduce the number of categories displayed in the tables, some are grouped together. 'Neonate Discharged to Another Hospital for Neonatal Aftercare' and 'Transferred to Another Hospital for Tertiary Aftercare' are included in 'Another Acute Care Hospital'. 'Discharged Under Care of Home IV Provider' is included in 'Home Health Services'. 'Admitted to Domiciliary Care Facility' is included in 'Other Institution'. 'Discharged to Intermediate Care Facility for the Mentally Retarded' is included in 'Intermediate Care Facility'.

▸ LENGTH OF STAY CALCULATION

The 1995 Annual Report includes length of stay information. SPARCS calculates a length of stay for each discharge record by subtracting the date of admission from the date of discharge. If a patient is admitted and discharged the same day, the length of stay is one day. This information is displayed on Tables 1 - 9, 11, and 14 - 17.

▸ *DIAGNOSIS-RELATED GROUPS*

Tables 14, 15, and 16 display information on Major Diagnosis Categories (MDCs) and Diagnosis Related Groups (DRGs). DRGs are a classification system used to categorize patient discharge abstracts into meaningful groupings. Federal MDCs and DRGs are displayed in the tables. New York State MDCs and DRGs are available upon request.

The 1980 to 1982 Annual Reports used the "original" 383 category DRG model, which was developed before the implementation of ICD-9-CM coding and depends on the conversion of codes to earlier coding schemes. The 1983 to 1995 reports used versions of the "new" DRG model which was designed to use ICD-9-CM codes directly. The first "new" DRG model had 470 DRGs arrayed within 23 Major Diagnostic Categories (MDCs). This version was used for the 1983 to 1985 reports. Because of new technologies, new coding for diseases, and the use of DRGs for reimbursement, adjustments have been made to the grouping methodology in new versions. The 1986 report used the 471 category revision, the 1987 report used the 473 category revision, and the 1988 report used the 475 category revision. In 1989 and 1990 the number of categories was 477 for both years though they were separate revisions. The 1991 report used the 490 category revision, which involved a major restructuring of the overall DRG classification scheme. The 1992 and 1993 reports used different revisions of the 492 categories which incorporate the major changes introduced in the previous revision. The 1994 report used the 494 category revision, and the 1995 report uses the 495 category revision.

The earlier DRG revisions began the classification by categorizing all principal diagnoses into 23 mutually exclusive and exhaustive MDCs, based on predetermined criteria. Within each MDC, the criteria used to select the DRG for a record includes the principal diagnosis, secondary diagnosis, operating room procedures, the presence or absence of a substantial comorbidity and/or complication, age, and discharge status. Invalid or clinically inconsistent information is classified in either DRG 468 (Extensive Operating Room Procedure Unrelated to Principal Diagnosis), DRG 469 (Principal Diagnosis Invalid as Discharge Diagnosis), DRG 470 (Ungroupable - Discharge with Invalid Data), DRG 476 (Prostatic Operating Room Procedure Unrelated to Principal Diagnosis), or DRG 477 (Non-Extensive Operating Room Procedure Unrelated to Principal Diagnosis).

In the case of the 495 DRG revision, which incorporates the previous years' restructuring, the classification begins with the definition of twelve DRGs that are assigned during a 'pre-MDC' screening process. After this screening process is completed, cases not assigned are categorized as previously into 23 mutually exclusive and exhaustive MDCs. Five of these 'pre-MDC' DRGs are not assigned to any MDC. They are DRG 480 (Liver Transplant), DRG 481 (Bone Marrow Transplant), DRG 482 (Tracheostomy with Mouth, Larynx, or Pharynx Disorder), DRG 483 (Tracheostomy Except for Mouth, Larynx, or Pharynx Disorder), and DRG 495 (Lung Transplant). The other seven 'pre-MDC' DRGs are assigned to one of two MDCs. These new MDCs are MDC 24 (Multiple Significant Trauma) and MDC 25 (Human Immunodeficiency Virus Infections).
DRGs 468, 469, 476, 477, 480, 481, 482, and 483 are not associated with a specific MDC and each case is reported in the appropriate MDC based on their diagnoses, procedures, and other criteria. DRG 470 is reported in MDC 00.

Figure A illustrates the method of selecting one of the eight DRGs specific to MDC 16: Diseases and Disorders of the Blood and Blood-Forming Organs and Immunity.

▸ AVERAGE TOTAL CHARGE OF STAY

The 1994 Annual Report is the first report to display charge information. Charge information is displayed with MDC, DRG, diagnostic, and surgical procedure data on Tables 13 and 18. Charges include both the covered and non-covered portions of patient stay for ancillary services and accommodations. Covered charges are those charges reimbursable by the primary payer.

▸ COUNTY OF RESIDENCE

The 1995 Annual Report displays information on patient county of residence on Tables 7, 8, 11, and 12. There are 128,267 discharges coded as having an unknown county of residence. Over fifty percent of these discharges are from four hospitals, who coded all their discharges as having an unknown county of residence. Detailed information on this data is available by contacting the SPARCS Administrative Unit.

SPARCS DATA REQUESTS

Department of Health and SPARCS information is available on the World Wide Web:

http://www.health.state.ny.us

Requests to obtain printed copies of the Annual Reports or questions regarding SPARCS data collection should be directed to:

SPARCS ADMINISTRATIVE UNIT
BUREAU OF PRODUCTION SYSTEMS MANAGEMENT
NEW YORK STATE DEPARTMENT OF HEALTH
EMPIRE STATE PLAZA
ALBANY NY 12237-0023

Phone: (518) 473-8144
Fax: (518) 474-9168
E-mail: albnydh2!sparcs (PCMAIL)
sparcs@health.state.ny.us (Internet)

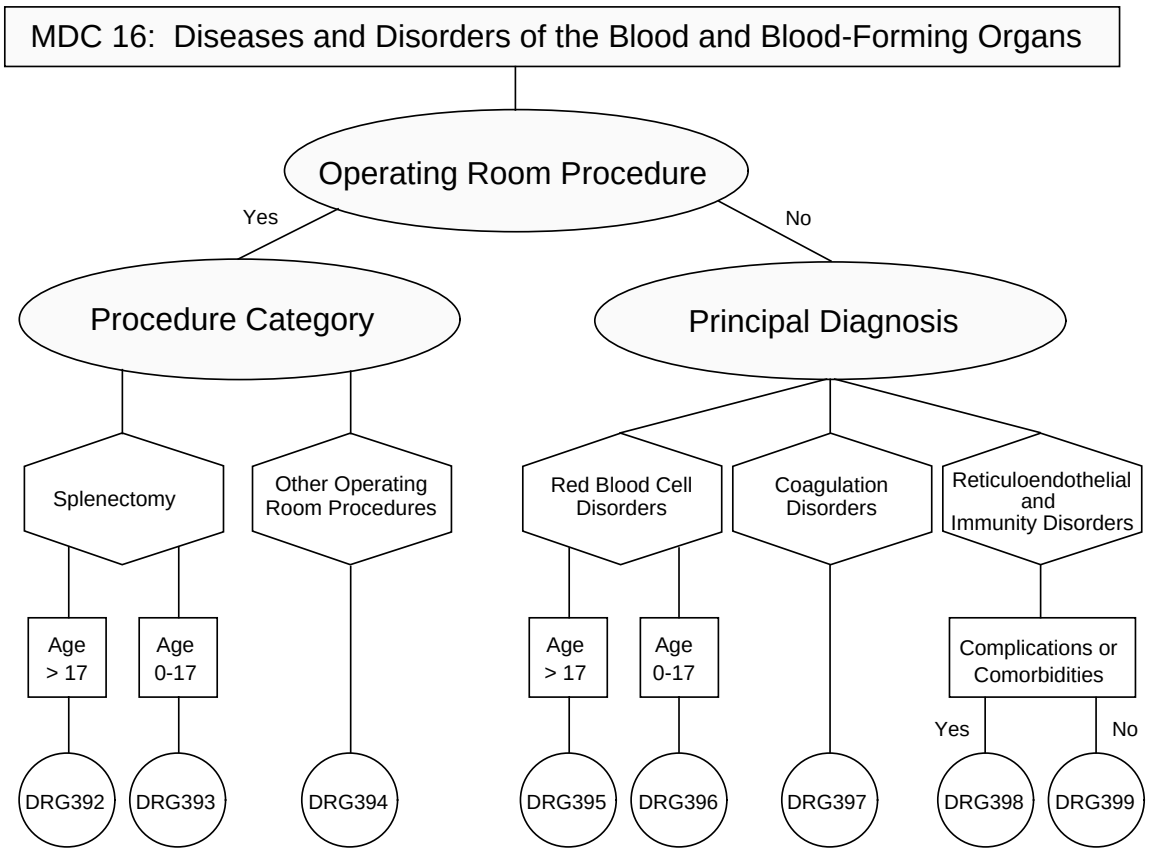
Any specialized requests for SPARCS data should be directed to:

BUREAU OF BIOMETRICS
NEW YORK STATE DEPARTMENT OF HEALTH
EMPIRE STATE PLAZA
ALBANY NY 12237-0044

Phone: (518) 474-3189
Fax: (518) 486-1630
E-mail: bio-info@health.state.ny.us (Internet)

All tables included in the Annual Report Series (beginning with 1987) are also available in spreadsheet format. Statewide tables for 1980 through 1995 have been published. Tables for the latest three complete years are also available on the World Wide Web. When specialized requests are approved for production, a cost estimate is provided based on the availability of existing reports and the cost of analysis, programming, and computer time.

Figure A. DRG Classification System



APPENDIX A

UNIVERSAL DATA SET (UDS) ELEMENTS COLLECTED BY SPARCS IN 1995

Accident Related Code
Accident Related Date
Accommodations Days
Accommodations Rate
Accommodations Total Charges
Accommodations Total Non-Covered Charges
Admission Date
Admission Hour
Admitting Diagnosis Code
After Anesthesia Indicator 1-14
Alternate Level of Care Days
Ancillary Revenue Code
Ancillary Total Charges
Ancillary Total Non-Covered Charges
Attending Physician State License Number
Blood Furnished Code and Amount
Covered Days
Date Alternate Care Required
Discharge Date
Discharge Hour
DRG Number Billed
Exempt Unit Indicator
Expected Principal Reimbursement
Expected Reimbursement Other 1
Expected Reimbursement Other 2
External Cause-of-Injury Code
Leave of Absence Days
Medical Record Number
Method of Anesthesia Used
Mother's Medical Record Number for Newborn Child
Neonate Birth Weight
New York State Patient Status or Disposition
Non-Covered Days
Operating Physician State License Number
Other Diagnosis Code 1-14
Other Diagnosis Emergent Indicator, Onset 1-14
Other Physician State License Number
Other Procedure Code 1-14
Other Procedure Date 1-14
Patient Birthdate
Patient Control Number
Patient Residence Address - Address Line 1
Patient Residence Address - Address Line 2
Patient Sex
Patient's City
Patient's County Code
Patient's Ethnicity
Patient's Postal Service Zip Code/Extension Code
Patient's Race
Patient's State
Payer Identification
Place-of-Injury Code
Placement of Bed Indicator
Policy Number
Prehospital Care Report Number
Principal Diagnosis Code
Principal Procedure Code
Principal Procedure Date
Procedure Coding Method
Provider Identification Number
Source of Admission
Source of Payment Code
SPARCS Accommodation Code
SPARCS Collector Code
SPARCS Identification Number
Special Program (DIS)
Special Program (FP)
Special Program (PHC)
Special Program (SFP)
Statement Covers Period - From Date
Statement Covers Period - Thru Date
Surplus, Catast., or Rec. Monthly Inc. Code/Amt
Total Accommodations Charges
Total Accommodations Non-Covered Charges
Total Acute Certified Days
Total Ancillary Charges
Total Ancillary Non-Covered Charges
Total Charges
Total Leave of Absence Days
Total Non-Covered Charges
Transaction Code
Type of Admission
Type of Alternate Care Required
Type of Bill
Unique Personal Identifier
Unscheduled/Scheduled Admission
Workers' Compensation/No Fault Indicator/Amt

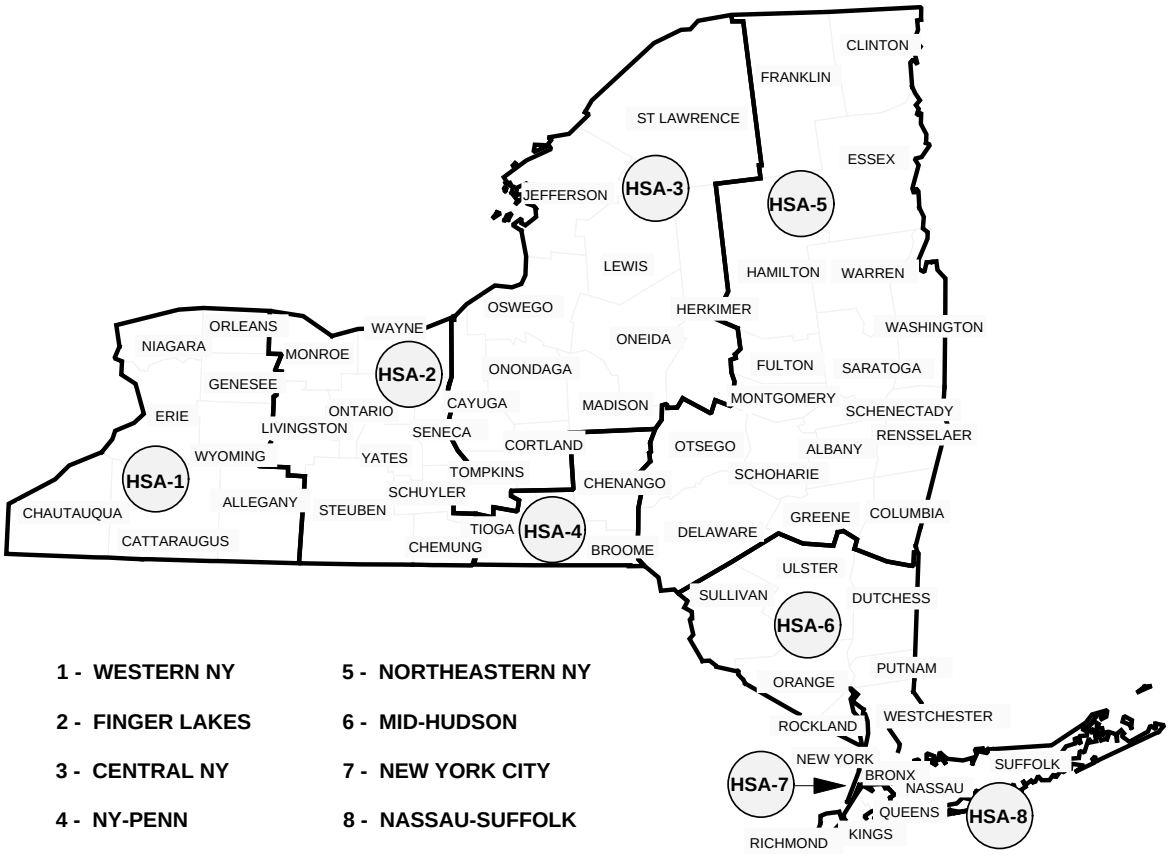
APPENDIX B

UNIVERSAL DATA SET (UDS) ELEMENTS DERIVED FROM SUBMITTED DATA IN 1995

Admit/Discharge Weekday
Age
Age in Days
Current, New, and Prior New York MDC and DRG
Current, New, and Prior Federal MDC and DRG
Health Service Area
Hospital County
Length of Stay
New New York MDC and DRG
New Federal MDC and DRG
Newborn Flag
Operating Certificate Number
Post Operative Days
Prior New York MDC and DRG
Prior Federal MDC and DRG
Same Day Discharge Indicator
Service Category
Total Alternate Level of Care Days

APPENDIX C

Figure B. New York State Health Service Areas and Counties



TABLES 1-14: Return to 1995 Annual Report Page Listing

(www.health.state.ny.us/nysdoh/sparcs/ars95.htm)

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